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REPORT TO THE CONGRESS

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**Slow Progress In Eliminating
Substandard Indian Housing**

B-114868

Department of the Interior

Department of Housing and Urban Development

*BY THE COMPTROLLER GENERAL
OF THE UNITED STATES*

OCT. 12. 1971

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COMPTROLLER GENERAL OF THE UNITED STATES

WASHINGTON, D.C. 20548

B-114868

To the President of the Senate and the
Speaker of the House of Representatives

This is our report on the slow progress in eliminating sub-standard Indian housing. The Indian housing program is operated under the Departments of the Interior and Housing and Urban Development.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretaries of the Interior and Housing and Urban Development; the Director, Indian Health Service, Department of Health, Education, and Welfare; and the Executive Director, National Council on Indian Opportunity.

A handwritten signature in cursive script that reads "James B. Stacks".

Comptroller General
of the United States

D I G E S T

WHY THE REVIEW WAS MADE

The Indian housing program is operated under the joint plans of three Government entities.

--The Bureau of Indian Affairs in the Department of the Interior.

--The Department of Housing and Urban Development (HUD).

--The Indian Health Service in the Department of Health, Education, and Welfare.

The primary programs involved are HUD's low-rent and mutual-help (home-ownership) public housing programs and the Bureau's housing improvement program. HUD provides financial assistance through local tribal housing authorities. The Bureau provides financial assistance directly to Indian families.

In the Housing and Urban Development Act of 1968, the Congress affirmed the national goal that each American family have a decent, safe, and sanitary home by the end of the 1970's.

The current goal of the Indian housing program is to eliminate substandard Indian housing on reservations in the 1970's. The General Accounting Office (GAO) made this review to determine whether the rate of progress was sufficient to achieve this goal.

FINDINGS AND CONCLUSIONS

Indian housing program progress

Progress has been slow. Unless the program is accelerated substantially, thousands of Indian families will continue to live under severe hardship conditions. (See pp. 10, 16, and 20.)

In June 1968 the Bureau estimated that 68,300 Indian families were living in substandard housing; 2 years later, after construction of 4,800 houses and renovation of 5,700, the Bureau estimated that 63,000 families still were living in substandard housing.

Bureau and HUD officials informed GAO that the slow progress in meeting Indians housing needs was due, in part, to the reluctance of some tribes to obtain Federal housing assistance. Bureau officials also cited delays in obtaining financing from HUD as contributing to slow progress. Other problems are inadequate identification of Indian housing needs and inadequate design, construction, and maintenance of houses. (See p. 19 and chs. 3 and 4.)

HUD's fiscal year 1970 plans called for only 4,500 units to be started, although an April 1969 agreement with the Departments of the Interior and Health, Education, and Welfare called for 6,000 units to be started by HUD in fiscal year 1970. (See p. 19.)

Identification of housing needs

Housing needs have not been identified adequately (see ch. 3) because the Bureau

- had not established guidelines for determining whether existing housing units were standard or substandard and, if substandard, whether they needed to be renovated or replaced (see p. 22);
- had classified newly constructed or renovated houses as standard although they lacked basic necessities (see p. 23);
- had not ensured that inventories of housing conditions and needs were taken periodically (see p. 24);
- had not considered family migration, adjacent off-reservation Indian population, housing deterioration, and family size and income, in determining and planning to meet long-term needs (see p. 27).

As a result of suggestions GAO made during its review, the Bureau has issued new guidelines with respect to general construction, heating, plumbing, wiring, and living space.

Problems in developing and operating housing projects

Although the program lags primarily because not enough houses are being built, many of the houses that have been built are inadequate because of defective design or incomplete construction. For example, new houses on the Pine Ridge Reservation in South Dakota may have to be condemned as unsafe for continued occupancy because various design and construction deficiencies resulted in cracked or bowed basement walls.

An Indian woman in a new housing unit on the Blackfeet Reservation in Montana described how she could watch the sunset through cracks in the walls when it was 40° below zero. As designed, the wall insulation, the attic vapor barrier, the wind barrier, and the heating systems all were inadequate.

Some Indian families are living in new houses which are incomplete or which lack water and sanitation facilities, and some new houses are located in projects which lack roads and streets. Other families have declined to move into the new houses without such supporting facilities. Incomplete housing projects resulted from (1) inadequate planning by, and coordination among, the agencies responsible for ensuring that all facets of the housing projects were completed within the same time frame and (2) a lack of follow-through by the Bureau and HUD to ensure that projects were completed. (See pp. 41 to 53.)

After new or renovated houses have improved family living conditions, there is little activity on the part of the local housing authorities, HUD, or the Bureau to provide assistance to families having problems in adjusting to their new living environment. As a result, many houses are deteriorating and the planned safe, sanitary, and decent living environment that the houses were designed to provide is being lost.

Using a checklist developed from HUD maintenance and safety standards, GAO inspected 232 new or renovated houses on 22 reservations and found the following types of deficiencies.

- Heating or ventilation facilities in 100 houses needed repair or adjustment.
- Water or plumbing facilities in 90 houses needed repair.
- Electrical facilities in 90 houses needed repair.
- Sanitation facilities in 30 houses needed repair.
- Roofs of 50 houses needed repair.

The Bureau or housing authority representatives' estimates of the repair costs averaged \$468 a house and ran as high as \$3,500. (See p. 32.)

GAO found a wide variance in the level of home maintenance assistance provided by the local tribal housing authorities and the Bureau. At one reservation which had an active maintenance assistance program, the estimated average cost to correct the maintenance deficiencies noted during GAO's inspection was only \$268 compared with the overall average cost of \$468. (See p. 37.)

At most reservations visited, however, home maintenance assistance was quite limited. For example, at one reservation the housing authority, assisted by the Bureau, inspected a 15-unit mutual-help housing project in 1967 and identified several deficiencies.

At the time of GAO's visit, however, these deficiencies still existed and some had intensified. The estimated average cost to repair these units was \$734. (See p. 37.)

GAO believes that the mutual-help method of construction--in which the tribe or individual Indian participant furnishes the land and the participant contributes his labor during construction--should not be encouraged, because such projects have been plagued by lengthy construction periods.

It took an average 19 months to complete 40 mutual-help projects each normally consisting of 10 to 20 units compared with an average 10 months for other HUD-assisted projects each consisting of many more units. (See pp. 54 to 57.)

RECOMMENDATIONS OR SUGGESTIONS

The Secretary of the Interior should direct the Commissioner of Indian Affairs to (1) require Bureau field officials to ensure that periodic inventories of housing conditions are taken using the guidelines issued by the Commissioner in May 1970 and (2) expand the procedures for measuring housing needs to include consideration of variable factors, such as family migration, adjacent off-reservation Indian population, housing deterioration, and family size and income, that have an impact on Indian housing needs. (See p. 29.)

The Secretary of HUD and the Secretary of the Interior should take steps to ensure (1) that maintenance inspections of federally assisted housing on all reservations are made periodically and that deficiencies identified are corrected on a timely basis and (2) that families experiencing difficulties in adjusting to their new living environment are provided with necessary training in the care and maintenance of their houses. (See p. 40.)

The Secretaries of HUD and the Interior should also

- strengthen the reviews of housing designs to ensure that housing plans adequately consider local climatic conditions,
- place increased emphasis on inspections during construction to reduce construction problems, and
- clearly establish which agency will be responsible for ensuring that known construction defects and incomplete items of construction are corrected on a timely basis. (See p. 54.)

The Secretary of the Interior should coordinate the activities of the various Federal agencies to ensure that roads and water and sanitation facilities are available as soon as the houses are constructed. (See p. 54.)

The Secretaries of HUD and the Interior should use the mutual-help program only when it is desired strongly by the Indians. The Secretary of the Interior should also ensure that, where houses are constructed under the mutual-help program, participants are informed adequately of their

duties and responsibilities and are provided with sufficient training, supervision, and leadership. (See p. 58.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

The Department of the Interior agreed that substandard reservation housing would not be eliminated in the 1970's without substantial acceleration of the program. HUD stated that it planned to review the goals of the Indian housing program in connection with the Secretary's recently established goals for homeownership opportunities. The Department of the Interior and HUD were in general agreement with the report conclusions and recommendations and advised GAO of the various actions to improve the program that were under consideration. (See pp. 20, 29, 40, 54, and 58.)

MATTERS FOR CONSIDERATION BY THE CONGRESS

The goal to eliminate substandard Indian housing in the 1970's will not be achieved unless the program is improved and accelerated.

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ABBREVIATIONS

GAO	General Accounting Office
HUD	Department of Housing and Urban Development

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CHAPTER 1

INTRODUCTION AND SCOPE OF REVIEW

The Indian housing program is operated under the joint plans of the Bureau of Indian Affairs, Department of the Interior; the Department of Housing and Urban Development; and the Indian Health Service, Department of Health, Education, and Welfare.

The Housing Act of 1949 (42 U.S.C. 1401) established as a national goal that each American family have a decent, safe, and sanitary home. The Congress, in the Housing and Urban Development Act of 1968 (42 U.S.C. 1441a), affirmed the national goal and stated that it should be met by the end of the 1970's. Until 1967 only a limited housing program existed on Indian reservations. In 1967, however, the Bureau accelerated the effort to improve Indian housing and set as a goal the elimination of all substandard Indian housing. The current goal of the program is to eliminate substandard Indian housing on reservations in the 1970's.

Bureau statistics showed that about 15,000 housing units were completed on Indian reservations during fiscal years 1967 through 1970. Our review included housing projects on 25 reservations having about 40 percent of the total housing units.

Our review included also an examination into applicable Federal laws and Bureau and HUD administrative policies and practices and an examination of pertinent records and files. We also observed and inspected housing units on selected reservations and interviewed the occupants; tribal representatives; and officials of the Bureau, HUD, and the tribal housing authorities.

Our review was made at the Bureau and HUD headquarters in Washington, D.C.; at the HUD regional offices in Chicago, Illinois, and San Francisco, California; at Bureau area offices in Aberdeen, South Dakota; Billings, Montana; Phoenix, Arizona; Portland, Oregon; and Window Rock, Arizona; and at 25 Indian reservations.

OVERALL PERSPECTIVE

We believe that the accomplishments of the Indian housing program should be appraised within the framework of the social and economic conditions on Indian reservations and of the problems and factors encountered by Federal agencies in administering assistance programs for Indians.

The President, in his July 1970 message to the Congress on new policies and goals for American Indians, pointed out that Indians were the most deprived and isolated minority group in our Nation. On virtually every scale of measurement--employment, income, education, and health--the condition of the Indian people ranks lowest. The President stated:

- That unemployment was 10 times the national average; the unemployment rate ran as high as 80 percent on some of the poor reservations.
- That 80 percent of Indian families living on reservations had incomes which fell below the poverty line; the average annual income for such families was only \$1,500.
- That school dropout rates for Indians were twice the national average and that the average educational level of Indians under Federal supervision was less than 6 school years.
- That the health of Indian people still lagged 20 to 25 years behind that of the general population. Infant mortality was nearly 50 percent higher than for the population at large. The tuberculosis rate was eight times higher than, and the suicide rate was twice, that of the general population. Many infectious diseases that had all but disappeared among other Americans continued to afflict the Indian people.

In testimony before the Subcommittees on Department of the Interior and Related Agencies, Senate and House Committees on Appropriations, during fiscal year 1970 and 1971 appropriation hearings, Federal officials stated that some of the problems or factors that had an impact on the accomplishments of the Federal assistance programs were:

- Fear of termination of the special trustee relationship with the Federal Government resulted in hesitancy on the part of some tribes to actively participate in Federal programs.
- Federal agencies providing assistance to Indians took a paternalistic approach.
- Cultural patterns of the Indian tribes differed from those of the dominant culture of the United States.

PROGRAM DESCRIPTION

The primary Federal assistance programs under which efforts have been made to improve housing on Indian reservations have been HUD's low-rent and mutual-help (homeownership) public housing programs and the Bureau's housing improvement program. HUD provides financial assistance through local tribal housing authorities, and the Bureau provides financial assistance directly to Indian families.

The tribal housing authority, with assistance from HUD and the Bureau, plans, designs, and supervises the construction of conventional low-rent housing. Also low-rent housing is constructed under the turnkey method, whereby a developer is responsible for the design and construction of a low-rent housing project and upon completion, the housing authority assumes responsibility for management of the project. The housing is rented to Indian families; the amount of the rent is based on family size and income. The housing authority generally is responsible for maintenance of the low-rent housing.

For several years the only HUD-financed homeownership program available to Indians on reservations was a force account mutual-help housing program. Under this program, the tribe or individual Indian participant furnished the land and the participant contributed his labor during the construction period. He obtained an equity in the house through his labor contribution.

Recently homeownership also has become available through the turnkey III and turnkey mutual-help methods. Under turnkey III, a developer constructs the house for the tribal

housing authority and the Indian family obtains an equity in the house through monthly payments and through maintenance of its house. Under the turnkey mutual-help method, the Indian family participates in the construction of the house under the supervision of the turnkey developer and generally is responsible for maintenance of its house.

The Bureau's housing improvement program provides both new and renovated housing for families when their needs cannot be met under other programs. The emphasis of the program has been on renovating and enlarging existing houses.

During fiscal years 1967 through 1970, the cost of the various HUD-financed housing programs and the Bureau's housing improvement program was about \$108 million. Under these programs, about 8,000 new housing units were constructed and 7,000 units were renovated.

The Indian Health Service generally provides water and sanitation facilities for new and renovated housing on Indian reservations under its sanitation facilities program.

CHAPTER 2

INDIAN HOUSING PROGRAM PROGRESS

We believe that, considering the progress in constructing and renovating houses, as shown in Bureau reports for fiscal years 1967 through 1970, and considering the problems that have continued to affect housing construction and maintenance, the Bureau's goal to eliminate substandard Indian housing on reservations in the 1970's will not be achieved unless the program is accelerated substantially.

The Bureau's criteria regarding what constitutes standard housing are that which is decent, safe, and sanitary and that which meets the minimum housing codes adopted by a tribe or otherwise applicable to a locality.

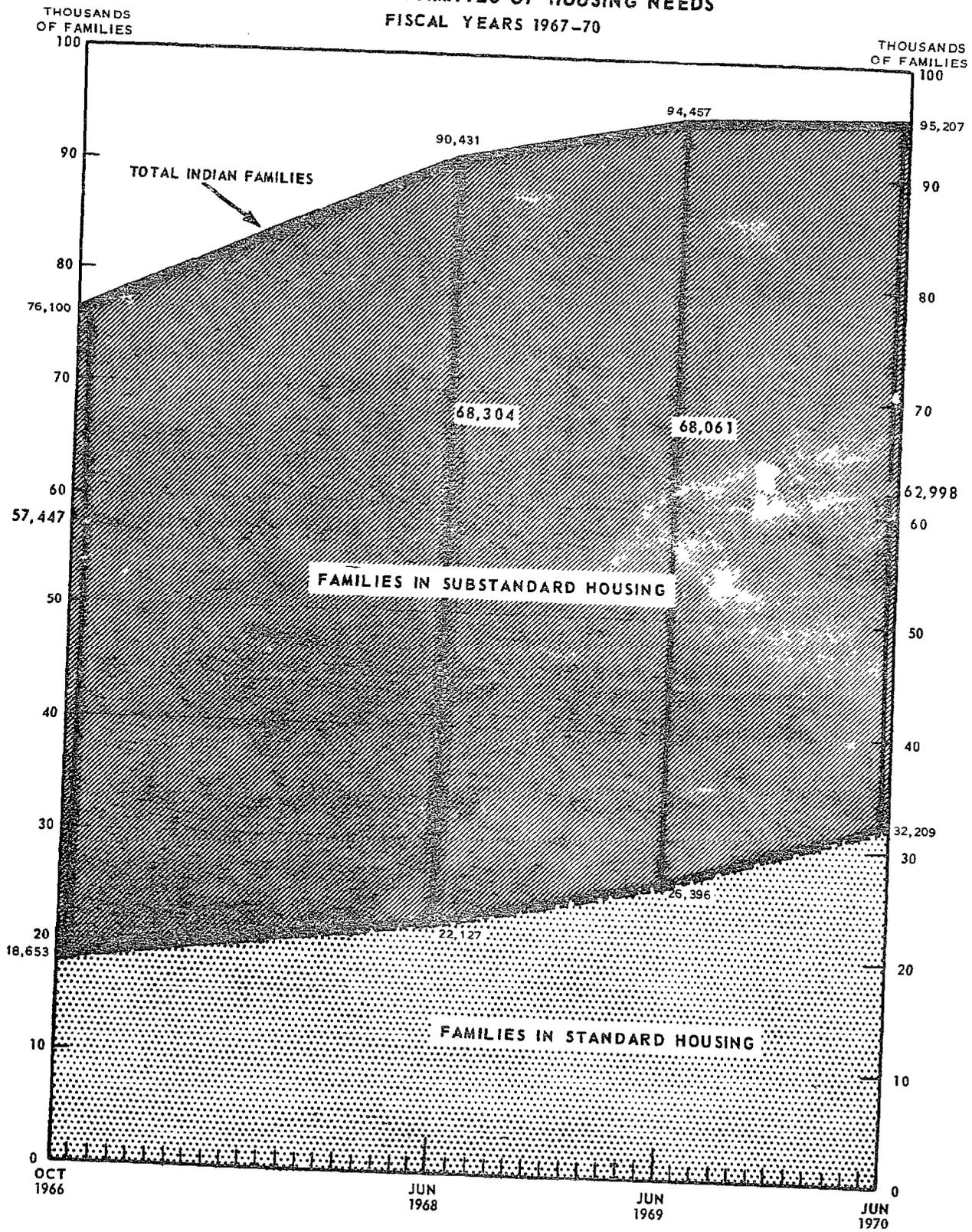
The charts on pages 11 and 12 show (1) the Bureau's estimates of housing needs for fiscal years 1967-70 and (2) a comparison of planned with actual construction and renovation of houses for the same period.

The living conditions of Indian families in new or renovated housing units generally have improved. (The photographs on pp. 14 and 15 are examples of unimproved and new reservation housing.) Our analysis of the estimated housing needs and of the actions taken to meet these needs shows, however, that the impact of these actions on reducing the number of families living in substandard housing has been offset by increases in the total number of Indian families.

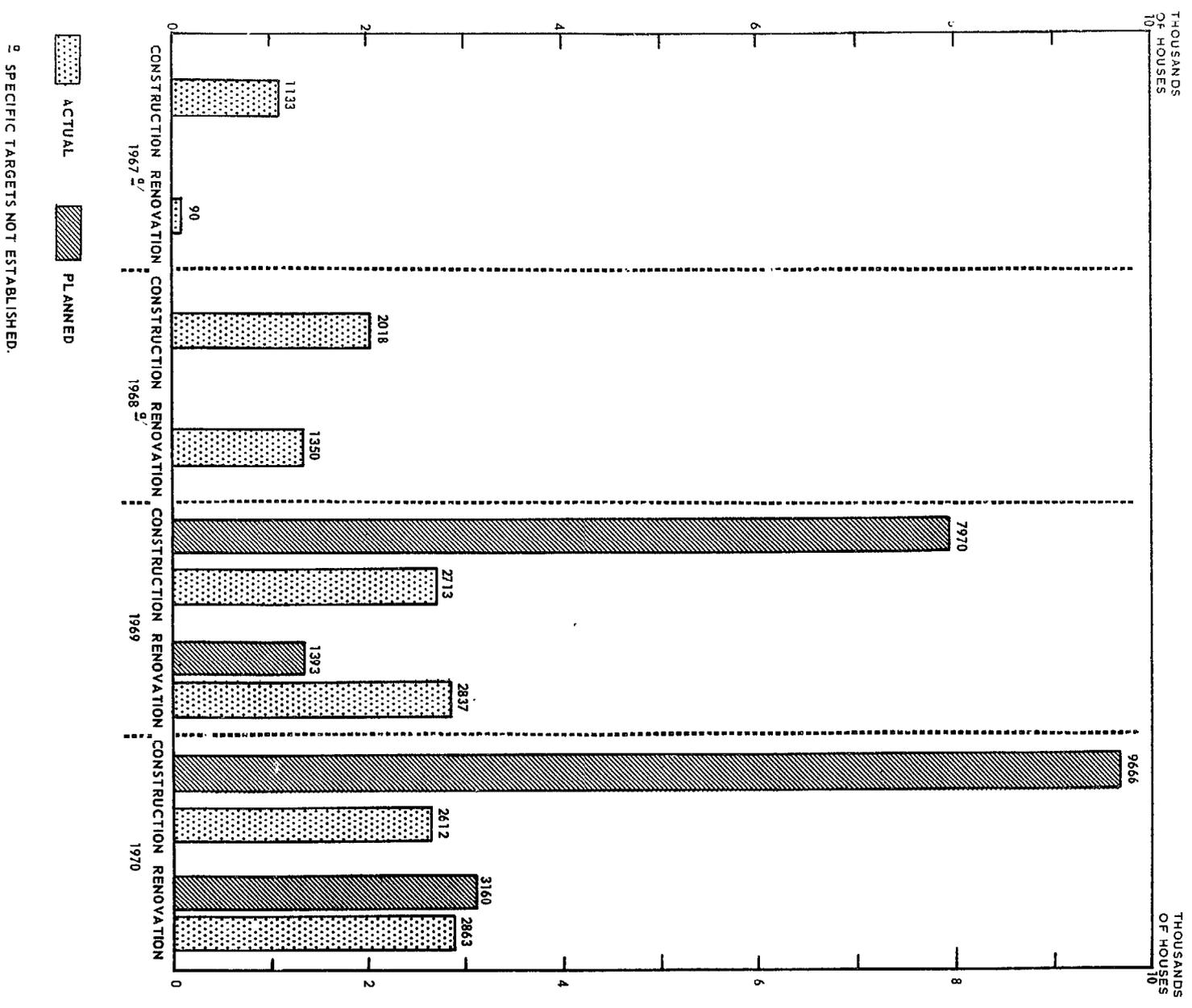
For example, in June 1968 the Bureau estimated that 68,300 Indian families were living in substandard housing. On June 30, 1970, after the construction of about 4,800 houses and the renovation of 5,700 houses, the Bureau estimated that 63,000 families still were living in substandard housing. The disparity in these statistics, as discussed in chapter 3, is caused, in part, by the Bureau's not having obtained accurate data on housing needs.

Assuming that the June 30, 1970, estimate of housing needs was both accurate and static and that the same level of construction and renovation--about 5,475 units in fiscal

BUREAU'S ESTIMATES OF HOUSING NEEDS FISCAL YEARS 1967-70



COMPARISON OF PLANNED WITH ACTUAL CONSTRUCTION AND RENOVATION OF HOUSES
FISCAL YEARS 1967-70



2 SPECIFIC TARGETS NOT ESTABLISHED.

year 1970--continues, it will take about 12 years to satisfy the housing needs of the 63,000 families still living in substandard housing.

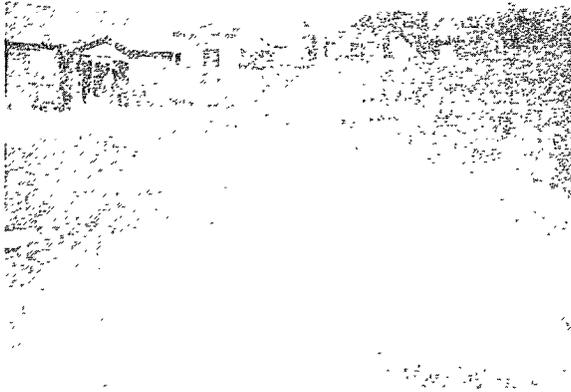
The June 30 estimate of housing needs did not consider, however, the effects that population growth, family migration, Indian families living adjacent to the reservation, and deterioration of standard housing would have on future housing needs. The Bureau estimates that population growth alone will increase housing needs by about 1,500 units a year, or about 18,000 units over the next 12 years.

Although the number of housing units constructed or renovated usually is a good indicator of the progress of a housing program, we found instances where this was not necessarily so. For example, Bureau records showed that, at the Rosebud Reservation in South Dakota, 400 housing units financed by HUD were completed during fiscal year 1969. As of April 1970, however, 72 of these units had not been occupied and thus had no impact on reducing the number of Indian families living in substandard housing. (See p. 51 for additional information on this project.)

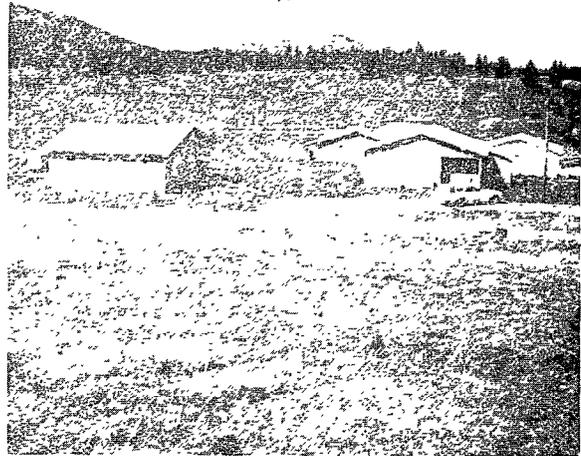
Our review showed that Bureau field officials generally did not use any formal criteria but relied on subjective judgment when determining whether houses were standard (decent, safe, and sanitary and met applicable housing codes). As a result of suggestions we made during our review, in May 1970 the Bureau issued new guidelines with respect to general construction, heating, plumbing, wiring, and living space.

In our inspection of the design and construction of selected Indian housing projects, we considered factors similar to those contained in the Bureau's May 1970 guidelines. The deficiencies we noted are listed in appendix I.

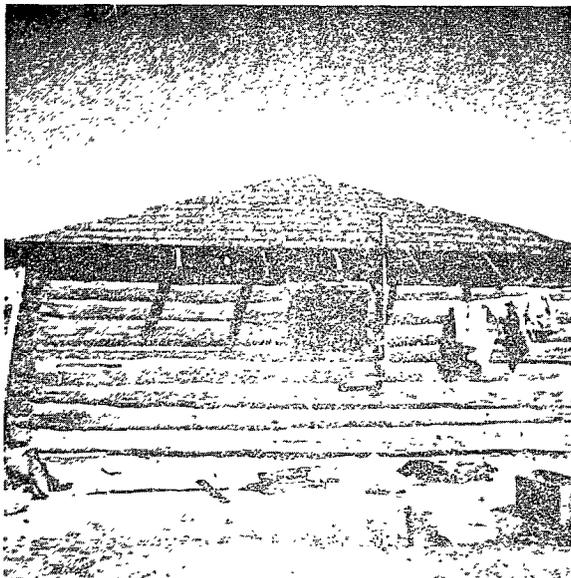
During our inspections of Indian houses on several reservations, we noted instances where recently constructed or renovated housing units were substandard, but, according to Bureau records, the number of substandard units had been reduced. For example, the Bureau renovated and moved 124 Government-surplus houses onto the Pine Ridge Reservation and considered the houses as meeting the standards although



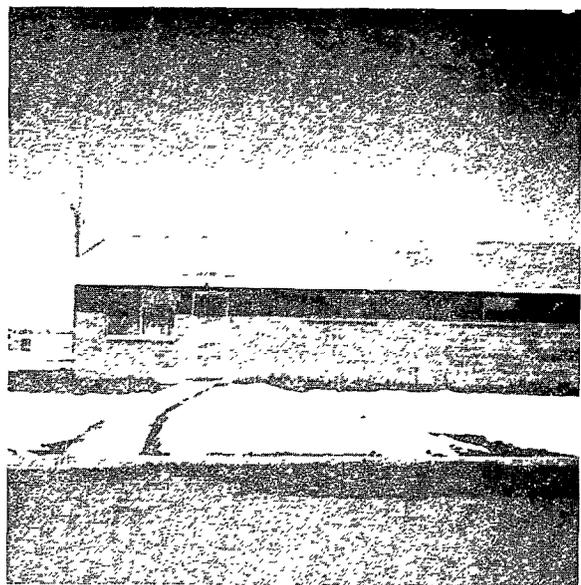
Unimproved homes on the Coeur d'Alene Reservation, Idaho.



New homes on the Coeur d'Alene Reservation.



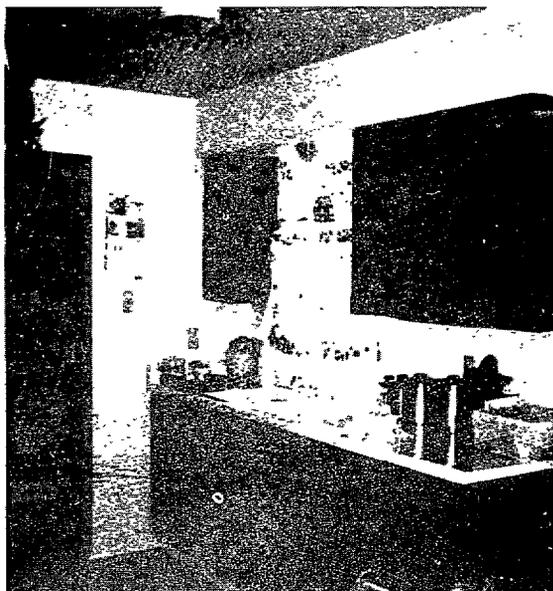
Unimproved home on the Navajo Reservation



New home on the Navajo Reservation.



Interior of unimproved home on the Navajo Reservation.



Interior of new home on the Navajo Reservation.

some of these houses were without plumbing or electricity. We noted also isolated instances at other reservations where units intended for Indian families were occupied by non-Indian families.

EFFECTS OF INADEQUATE HOUSING

Until the Indian housing goal is achieved, many Indians may continue to live in an environment which is seriously detrimental to their health and well-being. Testimony by Indian Health Service officials before the Subcommittees on Department of Interior and Related Agencies, Senate and House Committees on Appropriations, during fiscal year 1970 and 1971 appropriation hearings revealed that many Indian families in substandard housing were living under atrocious conditions that were harmful to their health and safety and that indirectly contributed to social and educational problems.

Indian Health Service officials testified also that many of the deaths and injuries among younger children and youths were associated with conditions in crowded and unsafe homes. These injuries, according to the officials, will continue to increase until the home environment is improved.

Indian Health Service officials testified further that the infant mortality rate for Indians was about 50 percent higher than for the general population. Finally, they testified that infant mortality during the first month compared favorably with national experience and that the high incidence of infant deaths occurred between the ages of 1 and 11 months and was associated with a harsh living environment involving inadequate and crowded housing conditions.

The Navajo Reservation, having about 110,000 residents, has the largest reservation population in the Nation. Its 13,000 families in need of standard housing represent about 20 percent of the overall Indian housing needs. An Indian Health Service report dated April 1, 1970, prepared at the request of the Navajo Tribe, stated that mortality rates for some diseases were much higher for the Navajo population than for the general population. For example, the mortality rate due to

- meningitis was 9.4 times higher,
- gastroenteritis was 6.9 times higher,
- tuberculosis was 3.5 times higher, and
- pneumonia was 3.4 times higher.

The report pointed out that the Navajo infant mortality rate per 1,000 live births was 42, or nearly twice the national infant mortality rate of 22.4. The life expectancy at birth for the Navajo was 63.2 years compared with 70.5 years for the general population. A life expectancy of 63 years was achieved about 25 years ago for the general population.

The report stated that many of the diseases for which rates of incidence were much higher for the Navajo population than for the general population were infectious diseases associated with a harsh physical environment and poor housing conditions, such as poor water supply, over crowding, unsanitary waste disposal, and lack of insect control. Improper food preparation facilities and a lack of refrigeration contributed to a high incidence of gastrointestinal disease.

The report highlighted the following housing conditions at the Navajo Reservation.

- 26 percent of the Navajo homes had electricity,
- 21 percent had running water to kitchen sinks,
- 20 percent had refrigeration for perishable food supplies, and
- 15 percent had flush toilets.

A document entitled "Comprehensive Demonstration Plan," prepared by the Gila River Indian Community in Arizona, described the reservation housing situation as follows:

"The deplorable conditions of housing exist as a result of vicious reinforcing cycle of poverty.

"*** a home with just a woman and the kids *** a father without a job *** walking out because he

can't take it *** sick children *** angry wife
*** misery *** leaky roof *** broken windows ***
no doors *** collapsing walls *** apathy *** res-
ignation *** alcohol *** suicide."

In addition to good health, other benefits may be derived, in part, from better housing. For example, an annual report of Indian achievements prepared by the Bureau's Branch of Credit at the Fort Apache Reservation in Arizona contained the following statement.

"Families in new homes have shown more responsibility on their jobs, their children are doing better in the schools and most significantly, misdemeanor arrests have decreased."

REASONS FOR SLOW PROGRESS

Bureau and HUD officials informed us that the slow progress in meeting the housing needs of Indians was due, in part, to the reluctance of some tribes to initiate action to obtain Federal housing assistance. Bureau officials attributed slow progress also to delays in obtaining financing from HUD. Bureau officials within the Portland and Aberdeen areas told us that tribal leaders at some reservations had failed to take the initiative in applying for housing projects. At some reservations in the Aberdeen area, tribal leaders rejected Bureau suggestions for obtaining housing projects.

In April 1969 HUD and the Departments of Health, Education, and Welfare and the Interior agreed to support a program to construct 7,000 to 8,000 units, including 6,000 to be financed by HUD, during each of fiscal years 1970 through 1974. This agreement was intended to be the basis for coordinated planning of Indian housing, as reported to the Subcommittee on the Department of the Interior and Related Agencies, House Committee on Appropriations, during fiscal year 1971 appropriation hearings.

Plans of HUD and the Bureau for fiscal year 1970, however, did not coincide and did not comply with the agreement. The Bureau planned that about 6,000 housing units to be financed by HUD would be started in 1970; however, HUD planned to start only 4,500 units. Moreover, by April 1970 HUD had a large national backlog of requests for housing units and, at that time, was unable to act on any requests for housing.

As a result, during fiscal year 1970, only 4,105 HUD-assisted units, rather than the 6,000 units initially planned, were started on Indian reservations and at remote Alaskan communities. According to the Director, Production Division, Housing Assistance Administration, HUD plans to make up for this limited production by approving the construction of more than 6,000 housing units during each of fiscal years 1972 through 1974.

Our review revealed other problems that were either impeding the progress of the housing program or making it

difficult to evaluate the true progress that was being made to eliminate substandard Indian housing. As discussed in chapter 3, Indian housing needs generally have not been identified adequately. Also progress has been hindered because of problems in designing, constructing, and maintaining homes. These matters are discussed in chapter 4.

CONCLUSIONS AND AGENCY COMMENTS

The goal of eliminating substandard Indian housing on reservations in the 1970's is based on the construction of about 7,000 to 8,000 houses a year, including 6,000 housing units to be financed by HUD. In view of the progress made in constructing or renovating houses during fiscal years 1967 through 1970 and of the continuing problems that affect housing construction and maintenance, we believe that the elimination of substandard Indian housing in the 1970's will not be achieved unless the program is accelerated substantially.

Without adequate housing thousands of Indian families will continue to live under severe hardship conditions that may lead, directly or indirectly, to early deaths, as well as to lifelong physical and mental disabilities.

In commenting on our draft report by letter dated February 18, 1971 (see app. II), the Department of the Interior agreed that substandard reservation housing would not be eliminated in the 1970's without substantial acceleration of the program. HUD informed us by letter dated February 26, 1971, that it planned to review the goals of the Indian housing program in connection with the Secretary's recently established goals for homeownership opportunities. HUD also anticipated that more responsive and efficient program administration would result from the recent establishment of HUD area offices and the Denver Regional Office.

CHAPTER 3

IDENTIFICATION OF HOUSING NEEDS

The housing needs of American Indians have not been identified accurately and completely because the Bureau (1) had not established guidelines for determining whether existing housing units were standard or substandard and, if substandard, whether they needed to be renovated or replaced, (2) had classified newly constructed or renovated houses as standard although they lacked basic necessities, (3) had not ensured that periodic inventories of housing conditions and needs were taken, and (4) had not considered family migration, adjacent off-reservation Indian population, housing deterioration, and family size and income, in determining and planning to meet the long-term needs.

We believe that, as a result, the program is being administered without much of the data necessary to plan and direct a successful program. Estimates of total housing needs should be based on accurate and complete data. This would assist management in establishing realistic goals, estimating the total program costs, selecting housing assistance programs to meet the specific needs and desires of the Indians, and measuring the incremental progress made toward the goals.

The 1969 report by the Special Subcommittee on Indian Education, Senate Committee on Labor and Public Welfare, stated that one of the problems in evaluating the Federal programs for the American Indian was the extraordinary inadequacy of available statistical data. The report cited a paper prepared for the Joint Economic Committee of the Congress, which pointed out that it was literally impossible to obtain current and accurate information on such basic questions as employment, educational attainment, income, land ownership, and reservation population.

The paper also stated that, without adequate data, a sound comparison could not be made to determine the increase or decrease of given problems or the improvement or lack of improvement in the economy of Indian tribes. The Subcommittee also reported that the lack of reliable data meant that the Congress could not carry out its legislative oversight function.

CRITERIA FOR IDENTIFYING
STANDARD AND SUBSTANDARD HOUSING

The Bureau's goal of eliminating substandard Indian housing on reservations was prompted by estimates completed in 1966, which showed that there were about 57,000 substandard housing units, of which about 16,000 could be renovated. These estimates were made in a short period of time and without the benefit of guidelines or criteria for identifying standard or substandard housing.

In June 1968 the Bureau's Assistant Commissioner requested that housing inventories which would identify standard and substandard housing and which would categorize housing as needing renovation or replacement be prepared for each reservation. The Assistant Commissioner provided the following criteria to be used when preparing the inventories.

"Housing in standard conditions means housing which is decent, safe, and sanitary in that it meets the minimum standard housing codes adopted by the tribe or otherwise applicable to the locality."

A subsequent inventory of housing needs was requested in June 1969. No additional guidelines for identifying or categorizing existing housing were provided at that time.

In our opinion the general guidelines provided by the Assistant Commissioner were not adequate for determining whether houses were standard or substandard or for categorizing substandard houses as needing renovation or replacement. We did not find any instances in which housing codes were being used to evaluate Indian housing. Reasons cited by Portland area Bureau officials for not using housing codes were: (1) codes were quite technical and were difficult to apply to existing structures; they were applicable primarily to new construction and (2) codes did not provide any guidelines or bases for determining whether a structure should be renovated or replaced.

Generally we found that field officials had not used any formal criteria when classifying houses as standard or

substandard or when determining whether houses should be renovated or replaced. Instead, they normally used subjective judgment as to what constituted standard houses. As a result many newly constructed or renovated houses were classified as standard although they lacked basic housing necessities.

For example, at the Rosebud Reservation, the Bureau classified 375 newly constructed houses as standard although the houses lacked hot water and adequate heating systems. The Bureau's Chief of Housing Assistance informed us that these houses actually were substandard and would have to be reclassified as substandard. During our inspection of houses and our review of records, we noted that several houses had been renovated and classified as standard although they had basic deficiencies, such as inadequate heating, plumbing, or electrical systems.

The photographs on the next page show a recently renovated house which the Bureau considers as meeting housing standards.

In other cases, new or renovated houses were classified as standard but the living conditions were substandard due to overcrowding. On the Rosebud, Pine Ridge, and Cheyenne River Reservations in South Dakota, we inspected 83 new or renovated houses. Of those houses, 51 did not meet HUD's minimum criteria for living space because an excessive number of persons were living in the houses.

As a result of our suggestions during the review, in May 1970 the Bureau issued new guidelines to its field officials for classifying Indian housing. Under the new guidelines a house, to be classified as standard, must meet certain minimum requirements with respect to general construction, heating, plumbing, wiring, and living space. We believe that these guidelines, if properly implemented, will provide a more uniform basis on which to evaluate housing quality and determine housing needs.

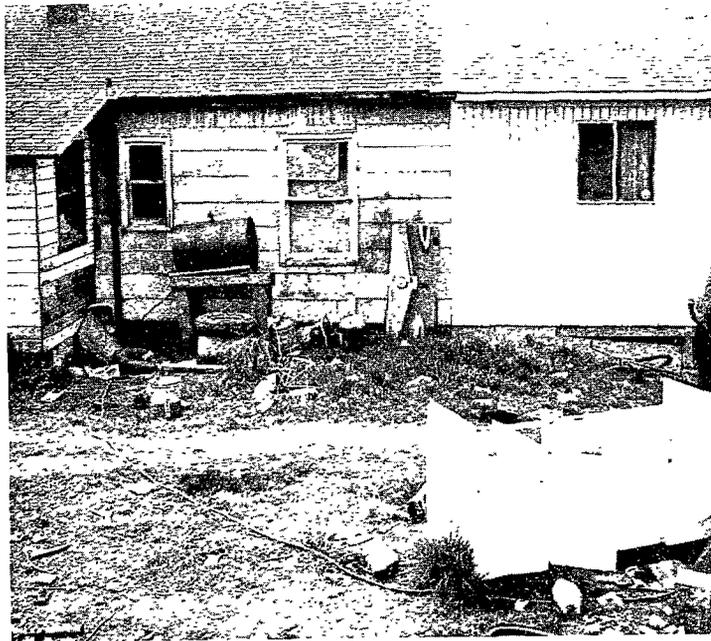
NEED FOR PERIODIC INVENTORIES OF EXISTING HOUSING CONDITIONS

The Bureau's estimates of housing needs, for the most part, have not been based on inventories made by the Bureau, the housing authority, the tribe, or other agencies operating on the reservation. Only in a few instances, such as at the Makah Reservation, Washington, have inventories of existing housing conditions been made. These inventories were made by a contractor for the tribe and were funded by a HUD planning grant. For most other reservations the housing needs were determined by desk estimates based on fragmentary data. Generally supporting documentation for the estimated needs was not available.

For example, in June 1968 Bureau field officials reported that there were 800 houses on the Yakima Reservation in Washington. An inventory was not taken to arrive at this estimate. During fiscal year 1969, 22 houses were constructed, but at the end of the year the Bureau field officials estimated that there were 1,300 houses on the reservation, an increase of 500 houses. The Bureau official responsible for housing on the reservation was unable to explain why there was an increase of 500 houses and how the Bureau's estimates of substandard housing units requiring renovation or replacement had been developed.

At the Pine Ridge Reservation, the housing inventories showed that there was an increase of 245 houses between 1966 and 1968 although no houses were constructed during that period. Bureau officials explained that the 1966 inventory was not accurate. At the San Carlos Reservation in Arizona, the inventory statistics were based on a roadside count of houses.

To accurately determine Indian housing needs, the Bureau should ensure that its estimates are based on periodic inventories. This does not necessarily mean that the Bureau would have to take the inventories. Instead, the Bureau should be involved primarily in providing technical assistance and in coordinating the efforts of the various tribal and other agencies. For example, a nationwide survey of home environmental conditions by the Indian Health Service is about 50-percent complete. The Bureau, at both the national and local levels, however, did little to coordinate this survey with the Indian Health Service to meet its



House on the Muckleshoot Reservation, Washington, renovated through the Bureau housing improvement program. Photo at bottom shows a portion of the interior of the house. This house, which the Bureau considered as meeting housing standards, had smoke and soot damage, had many holes in the interior walls, and needed a new chimney. A nine-member family lived in the house.



need for accurate and complete data on housing conditions. With adequate coordination the results of this survey probably could fulfill both agencies' housing data needs.

NEED TO CONSIDER ADDITIONAL FACTORS
IN PLANNING HOUSING PROGRAMS

Other factors having an impact on determining Indian housing needs have not been clearly identified and considered by the Bureau in planning to meet the long-term needs. These include (1) adjacent off-reservation Indian population, (2) migration of families, (3) housing deterioration, and (4) family size and income.

Adjacent off-reservation Indian families have not been considered in estimating Indian housing needs, although some of these families want to be served by the housing program. For example, at the Swinomish Reservation in Washington, about four out of 10 families in the mutual-help project previously lived off the reservation. Some families have returned to the Rosebud Reservation to occupy new housing. At the Lummi Reservation in Washington, the tribal chairman stated that many Indians eligible for new housing were living in nearby off-reservation communities and had not been considered in the Bureau's estimate of needs. At the Pine Ridge and Cheyenne Reservations, tribal housing authority officials advised us that, as additional houses were constructed, some families living off the reservation would return and occupy the houses. Also migration to and from the reservation is not being considered. We found no indication that reliable data on migration was available.

HUD, in developing national housing goals, estimated that about 2.2 million housing units considered adequate in 1967 would deteriorate to substandard units and would have to be replaced by 1977. The Bureau, in projecting the housing needs and in setting its goal to eliminate substandard Indian housing, however, did not consider deterioration of houses. We believe that housing deterioration is a factor that should be considered. (See ch. 4 for a detailed discussion of home maintenance problems.)

In formulating plans to eliminate substandard housing, neither the housing authorities nor the Bureau has identified which programs are best suited to the needs of the Indian population in view of such factors as the Indian family's size and income, desire for homeownership, and ability and desire to maintain a house.

The Chief of the Bureau's Housing Assistance Division told us that the above factors should be considered in estimating housing needs but that the necessary data was not available.

CONCLUSIONS

Indian housing needs have not been properly identified because guidelines have not been established to assist Bureau field officials in determining and categorizing housing conditions; because periodic inventories of existing housing conditions generally have not been taken; and because such factors as adjacent off-reservation Indian population, family migration, family size and income, and house deterioration have not been considered.

Housing on Indian reservations can be provided under various federally assisted housing programs. Some are ownership programs, while others are rental programs; some call for Indian participation in the construction, while others do not; and some provide home maintenance services, while others require the family to perform needed maintenance. HUD's public housing programs require occupants to make monthly equity or rent payments; the Bureau's housing improvement program provides grants and does not require occupants to make monthly payments. Also family income qualifications differ under each program.

The existence of these various programs provides the opportunity to plan housing programs that are best suited to meet the specific needs and desires of Indian families. Without adequate data, however, it becomes difficult for the tribal housing authorities or the Bureau to develop realistic reservation housing plans.

If Indian housing needs were accurately and completely identified, the program could be more effectively administered, because the Bureau would have data to assist it in adequately answering such pertinent questions as:

--How many families are or will be in need of housing between now and 1980?

- How many existing houses are standard or substandard? Of the substandard houses, how many need to be replaced rather than renovated?
- Where are the houses most urgently needed? And how should resources be allocated to meet these needs?
- What specific housing program or programs will best meet the reservation housing needs?
- To what extent are such factors as migration to and from a reservation and structural deterioration of housing units affecting program accomplishments?
- What real progress is being made to eliminate substandard housing?

The availability of reliable and complete data on housing needs would permit development of more realistic plans to eliminate substandard housing and would provide the basis for appraising the incremental progress being made toward accomplishment of the goal.

RECOMMENDATIONS TO THE SECRETARY OF THE INTERIOR

We recommend that the Secretary of the Interior direct the Commissioner of Indian Affairs to (1) require Bureau field officials to ensure that periodic inventories of housing conditions are taken using the guidelines issued by the Commissioner in May 1970 and (2) expand the procedures for measuring housing needs to include consideration of variable factors, such as family migration, adjacent off-reservation Indian population, housing deterioration, and family size and income, that have an impact on Indian housing needs.

AGENCY COMMENTS

The Department of the Interior, in commenting on our draft report, advised us that annual housing inventories would be taken and that the Department would utilize data obtained from the Indian Health Service and HUD and from the Bureau's population statistics. The Department also agreed to consider factors that have an impact on housing

needs and stated that migration back to the reservation should be considered when the reservation economy improved and tended to attract families back to the reservation.

CHAPTER 4

PROBLEMS IN DEVELOPING AND OPERATING HOUSING PROJECTS

Developmental and operational shortcomings in the Indian housing program have impeded the elimination of substandard housing and have resulted in Indian families' continuing to live in substandard housing. Force account mutual-help projects generally have been plagued by lengthy construction periods, which resulted in additional costs and in delays in the construction of follow-on projects. In housing considered to have been completed, numerous design and construction defects and incomplete construction items existed, which resulted in additional costs and in more rapid deterioration of the houses. After houses are occupied many deteriorate rapidly due to a lack of maintenance.

NEED FOR AN EFFECTIVE HOME MAINTENANCE PROGRAM

Large numbers of recently completed Indian homes are rapidly deteriorating due to a lack of maintenance and to poor housekeeping. Although the new or renovated housing initially improved the living conditions of the Indian families, some families are having problems adjusting to their new living environment. There has been little activity on the part of the housing authorities, HUD, or the Bureau to identify and provide assistance to these families. As a result, in about one third of the houses which we inspected, deferred maintenance and poor housekeeping had contributed to the deterioration of the home environment to such an extent that the planned safe, sanitary, and decent living environment that the houses were designed to provide was being lost. Some houses had improperly operating heating, electrical, water, and sanitation systems, and some families were living in filth and around garbage, debris, and vermin.

Accompanied by housing authority or Bureau representatives, we inspected 232 new or renovated houses on 22 reservations. For each of these houses, the occupant, as a potential homeowner, was primarily responsible for maintenance. Using a checklist developed from HUD maintenance and safety standards, we identified houses having maintenance

deficiencies. The housing authority or Bureau representatives estimated the costs to correct the identified maintenance deficiencies for 187 of the houses. The estimated repair costs for the 187 houses averaged \$468 a house and ran as high as \$3,500.

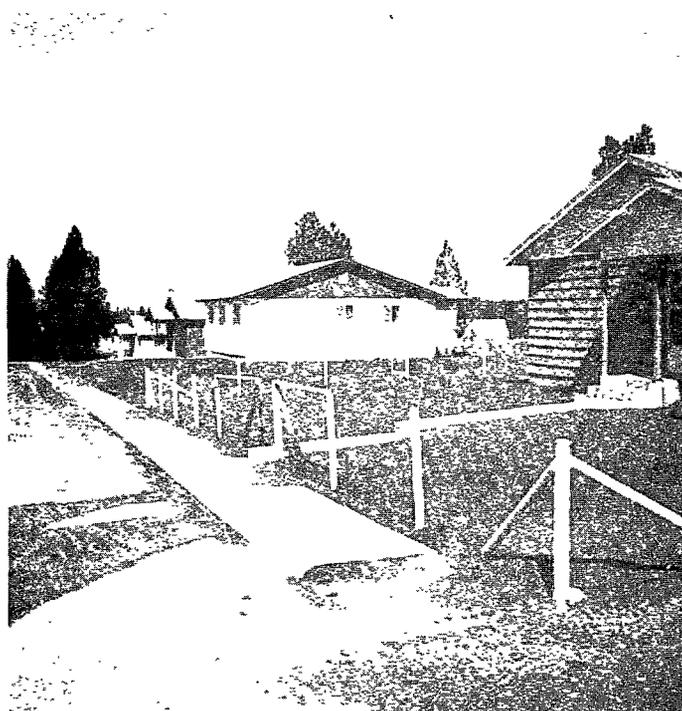
The inspections revealed numerous deficiencies, both of a major and of a minor nature. Many of the deficiencies were minor when considered alone but collectively indicated a need for maintenance assistance. We found deficiencies of the following types.

- Heating or ventilation facilities in 100 houses needed repair or adjustment.
- Water or plumbing facilities in 90 houses needed repair.
- Electrical facilities in 90 houses needed repair.
- Sanitation facilities in 30 houses needed repair.
- The exterior walls of 140 houses needed paint or stain to prevent deterioration.
- The roofs of 50 houses needed repair.
- The interior floors, walls, or ceilings of 170 houses needed repair or paint.
- The debris and garbage and other conditions in and around 130 houses were health or safety hazards.

The following photographs illustrate some of the maintenance and housekeeping conditions we observed.



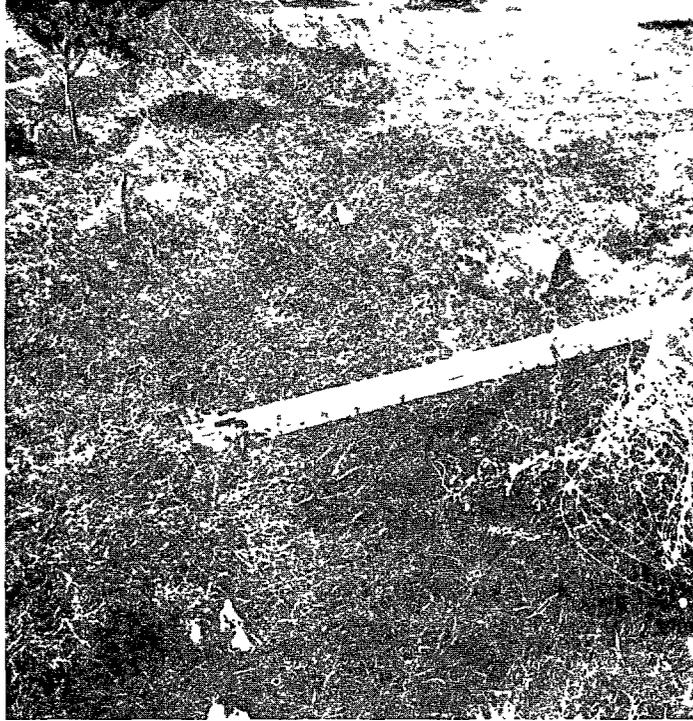
Debris and garbage around a mutual-help house on the Gila River Reservation, Arizona.



Mutual-help houses neat in appearance and upkeep on the Coeur d'Alene Reservation.



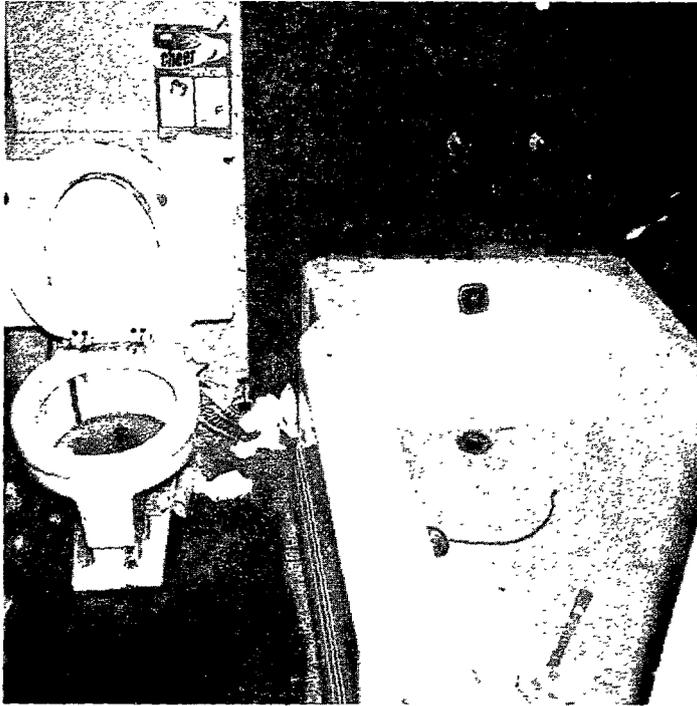
Mutual-help house in need of exterior paint on the Yakima Reservation.



Stagnant sewage overflow from septic system within close proximity of a mutual-help house on the San Carlos Reservation.



Part of toilet missing in mutual help house on the Salt River Reservation in Arizona.



Unclean bathroom of a house renovated under the Bureau's housing improvement program at the Muckleshoot Reservation.



Kitchen plumbing leak in a mutual-help house on the Salt River Reservation.

Under the interagency agreements with HUD, the Bureau is to provide assistance, as necessary, to the housing authorities in conducting maintenance inspections, to determine whether housekeeping and maintenance are adequate. In addition, the agreement for the mutual-help program provides that the Bureau endeavor to formulate training programs for mutual-help program participants, to obtain the highest level of competence in the construction and maintenance of their homes. According to the agreements the Bureau is to provide assistance to the housing authorities through its maintenance-engineering surveys, occupancy audits, and management reviews. HUD subsequently agreed to provide this assistance on a reimbursable basis.

We found a wide variance in the level of home maintenance assistance provided by the housing authorities and the Bureau. For example, on two projects at the Nez Perce Reservation in Idaho, the housing authority, with the Bureau's assistance, had an active maintenance assistance program which provided for (1) joint semiannual inspections, (2) verbal and written communications of problems identified, (3) follow-up inspections, and (4) advice and instructions on making repairs. The results of these assistance efforts were apparent during our inspections of five houses in the two projects. The estimated average cost to correct the maintenance deficiencies on this reservation was only \$268 compared with the overall average cost of \$468. (See p. 32.)

At most reservations visited, however, we found that home maintenance assistance was quite limited or nonexistent. For example, at the Salt River Reservation, the housing authority, assisted by the Bureau, inspected a 15-unit mutual-help housing project in 1967 and identified several deficiencies. Little follow-up action was taken, however, and, consequently, at the time of our visit to the reservation, many of these earlier deficiencies still existed and some had intensified. The estimated average cost to repair these units was \$734.

At the Pine Ridge and Rosebud Reservations, home maintenance problems generally were not routinely identified on HUD-financed projects because maintenance inspections were not being made by the housing authorities or by the Bureau.

Our inspection of 23 houses in one project on the Rosebud Reservation revealed 19 houses where defective stovepipes had caused severe interior smoke and soot damage. In addition, defective stovepipes created a health and safety hazard. The photograph on page 43 shows the smoke damage to one house.

Reasons generally cited by housing authority and Bureau officials for the Indian families' maintenance and housekeeping problems were (1) low or inadequate incomes, (2) unawareness and lack of exposure to modern home living, and (3) low priority given to home maintenance in relation to the families' other needs. During our home inspections we asked the families for information on their annual incomes. For the 101 families which provided us with the information, the annual income ranged from none to \$12,000 and averaged \$3,923.

HUD has been unable to provide the necessary management assistance to the housing authorities. Officials at HUD's Chicago Regional Office informed us that no maintenance inspections and very little training of housing authority employees could be accomplished because of the shortage of staff. Officials of HUD's San Francisco Regional Office also cited shortage of staff as a reason for their limited management reviews of housing authorities.

The housing authorities' and the Bureau's efforts to provide home maintenance and housekeeping training to Indian families have been limited and sporadic. The Bureau has contracted with the Cooperative State Extension Services in various States to provide homemaking and housekeeping training for Indian families. We found, however, that such home extension services were limited. For example, only nine of 20 reservations in the Bureau's Portland area which have Bureau- or HUD-assisted housing projects have home extension service. In addition, our inquiries of 59 families in new or renovated housing on eight reservations indicated that only 26 families had received training from anyone, including the Extension Service agents.

Both the Bureau and HUD, however, recently have taken initial steps to provide home maintenance training to Indian families. The Bureau's Portland and Aberdeen Area

Offices recently have developed plans, and each has designated an official to establish home environmental training programs on various reservations. As planned in the Aberdeen area, the training programs will use local home leadership aides to provide preoccupancy and postoccupancy training and assistance to Indian families. According to officials of the Aberdeen area, home visits, rather than classroom training, will be emphasized due to poor attendance at training classes. In June 1970 HUD agreed to finance a homeownership training program for a 400-unit project on the Rosebud Reservation. This was the first homeownership training program on Indian reservations financed by HUD. These plans and programs, if adequately implemented, should be a positive step toward improving home maintenance.

Conclusions

Many Indian families are living in recently completed houses that are rapidly deteriorating due to a lack of maintenance and to poor housekeeping. Although the housing initially improved the families' living conditions, little training was provided to the families on how to care for and maintain their houses to keep them safe, sanitary, and decent. Due to the absence of adequate home inspections and management reviews, HUD and Bureau officials were unaware of the need for strong maintenance training programs. Many families move into new modern houses from primitive dwellings without an increase in their homemaking skills or maintenance knowledge. For many it is their first experience with modern electrical and gas utilities and indoor plumbing in their houses.

In the future the Bureau and HUD, in selecting Indian families for the various types of housing, should consider both the families' basic needs and the families' capability to maintain the houses.

Recommendations to the Secretary of HUD and the Secretary of the Interior

We recommend that the Secretary of HUD and the Secretary of the Interior take steps to ensure (1) that maintenance inspections of federally assisted housing on all reservations are made periodically and that deficiencies identified are corrected on a timely basis and (2) that families experiencing difficulties in adjusting to their new living environment are provided with necessary training in the care and maintenance of their houses.

Agency comments

In commenting on our draft report, HUD indicated that it believed that management training grants, authorized by section 904 of the Housing and Urban Development Act of 1970, might be useful to tribal housing authorities in carrying out their responsibilities. The Secretary's Homeownership Task Force also is considering the need to provide family training on home maintenance. The Department of the Interior, in commenting on our draft report, indicated that it felt strongly that inspections and follow-ups were essential to maintaining decent housing. The Department of the Interior agreed to cooperate with the

tribal housing authorities and with HUD in identifying maintenance problems and providing training programs.

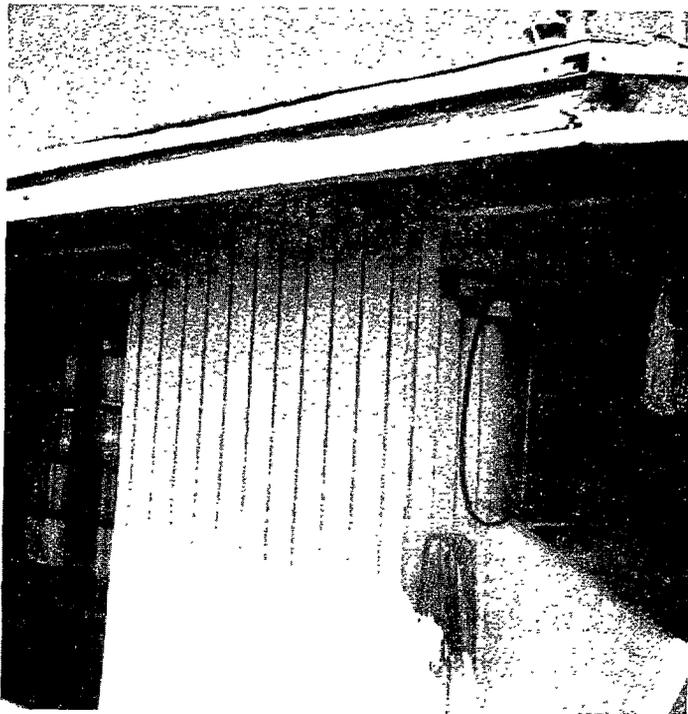
NEED FOR IMPROVEMENTS IN
DESIGN AND CONSTRUCTION OF HOUSES

Indian housing financed by the Bureau and HUD should be designed and constructed to provide decent, safe, and sanitary housing. Poorly constructed or renovated houses exist, however, due to inadequate design, faulty construction, and incomplete construction. As a result (1) substantial funds have been or will be required to repair and complete construction of the houses and (2) some Indians are living in new or renovated houses which do not meet housing standards.

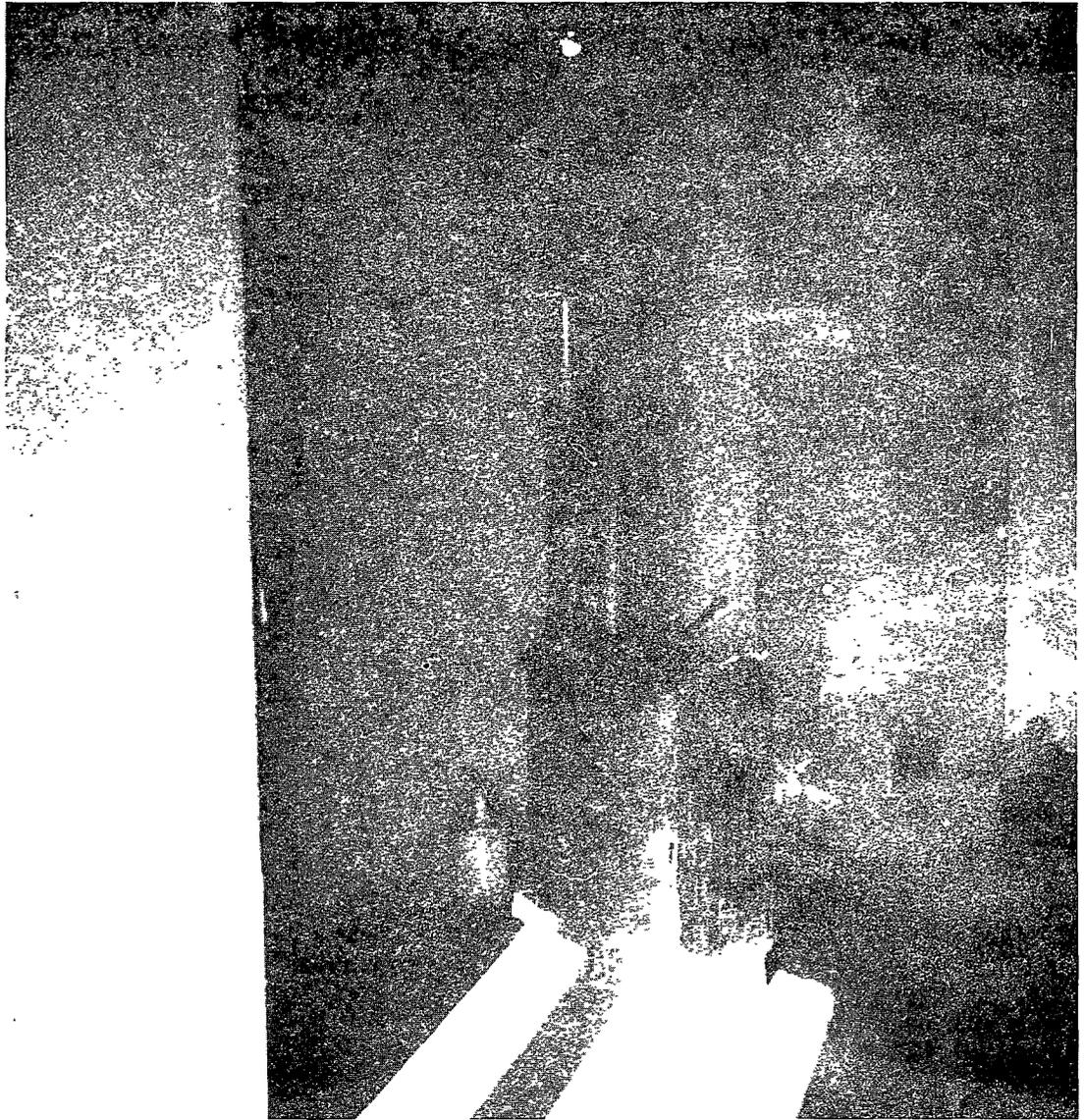
Accompanied by housing authority or Bureau representatives, we inspected 232 new and renovated housing units on 22 reservations. (See p. 31.) Appendix I lists various design and construction deficiencies which were identified during these inspections, such as settling foundations, unstable floors, insufficient insulation, faulty wall construction, undersized heating units, inadequate roofs, and the lack of water and sanitation facilities. Some houses were located in projects which lacked roads and streets and for which site preparation and drainage were incomplete. The following photographs show some of the design and construction deficiencies that were identified.



Dilaminating, deteriorating exterior door due to inadequate gutters and canopy on porch on a Bureau housing improvement house on the Quinault Reservation in Washington.



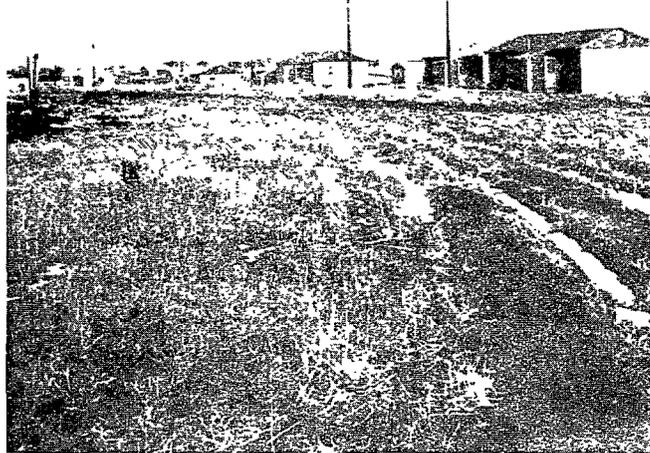
Rotting fascia board under the roof due to faulty design or materials on a mutual-help house on the Salt River Reservation.



Interior smoke and soot damage due to the stovepipe's being installed improperly in a transitional house on the Rosebud Reservation.



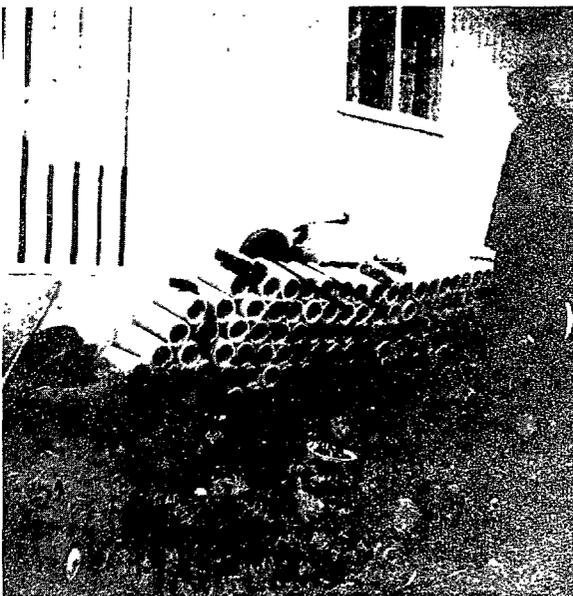
Milk cans used to carry water because the indoor water system was inadequate at a transitional home on the Rosebud Reservation. Typical of 59 homes without water on Rosebud Reservation as of August 1970.



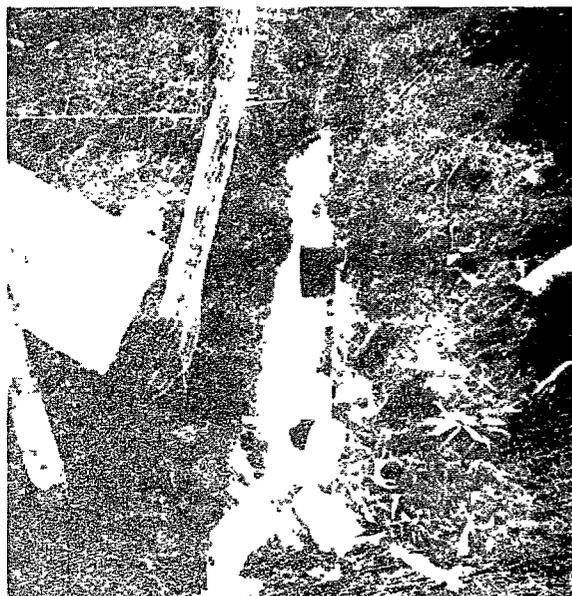
No roads or streets provided to 400 turnkey houses on the Rosebud Reservation. Photo at top taken in November 1969. Photo at bottom taken in April 1970 when many of the unimproved roads were impassable.



Incomplete site preparation and drainage at the mutual-help project on the Swinomish Reservation.



Drainage tile not installed on lot of a mutual-help house on the Swinomish Reservation.



Location where drainage tile shown at left should have been installed. This ditch is within close proximity of the house.

Responsibilities for proper design and construction

Both HUD and the Bureau have responsibilities under interagency agreements for ensuring proper design, construction, and completion of the housing projects. The Bureau and HUD developed standard house plans for the force account mutual-help program. For low-rent and turnkey projects, an architect or developer designs the houses; the Bureau assists the housing authority and the architect in the design, as necessary. Final review and approval of the designs are made by HUD. For the housing improvement program, the Bureau is responsible for proper design and construction of units.

Both HUD and the Bureau have responsibilities for ensuring also that housing is constructed in accordance with designs and specifications. The interagency agreements for low-rent and mutual-help housing state that, if adequate construction services, including overall superintendence and inspection for quality of materials and construction and for adherence to specifications, are not furnished by the housing authority, the Bureau will furnish them. The agreements state also that a HUD construction representative shall conduct periodic inspections of the projects to ensure proper construction.

Providing the supporting facilities for housing projects is a joint responsibility of the Bureau, HUD, and the Indian Health Service. For low-rent and turnkey projects, roads are financed by HUD as part of the project cost. For mutual-help projects the Bureau usually agreed to provide streets and roads. Providing water and sanitation facilities on both HUD-assisted and Bureau housing improvement projects is generally the responsibility of the Indian Health Service. The low-rent and mutual-help program guidelines provide that the Bureau coordinate the planning of housing projects with the installation of water and sanitation facilities provided by the Indian Health Service. With regard to construction of the houses, guidelines under the mutual-help program do not specify which Federal agency is operationally responsible for ensuring that all construction items are completed.

HUD, in commenting on a draft of this report, pointed out that both the Bureau and HUD had some construction responsibilities but that, in the final analysis, the Secretary of HUD was responsible for the acts of his agents whether they be Bureau or HUD employees.

Inadequately designed and constructed projects

Many of the projects included in our review had design and construction defects. Some of the more serious design defects resulted from inadequate consideration of local climatic conditions in the development of housing plans and specifications. Some of the more serious construction defects were not detected because of inadequate construction inspections.

The 50-unit low-rent project on the Blackfeet Reservation, completed in January 1966, needs to be renovated to correct design and construction defects. A March 1969 HUD report describing this project pointed out that 1- to 2-inch-thick ice had accumulated in the corners of the inside walls. One tenant described how she could watch the sunset through the cracks in the walls when it was 40° below zero. This situation is attributable, in part, to the plans' lack of provision for design features that would ensure protection against the extremes of the Montana climate. As designed, the wall insulation, the attic vapor barrier, the wind barrier, and the heating systems all were inadequate.

The project also had many construction defects that had not been detected because inspections had been inadequate. Inadequate construction inspections were evidenced by the 45 postconstruction defects, requiring 104 corrective measures, reported by HUD field officials to their regional office in February 1966.

According to the housing authority legal counsel, inadequate inspections by the housing authority and by HUD contributed to the problem. In 1967 the housing authority withheld from the contractor \$58,000 to correct defects resulting from incomplete or faulty construction. After spending most of these funds, the housing authority estimated that \$229,000 more would be required to repair the houses. In commenting on a draft of this report, HUD informed us that

funds now were being devoted to make these units standard and adequate.

In two low-rent projects on the Pine Ridge Reservation, the basement walls were bowed or cracked in many of the units. According to housing authority and Bureau officials, the units may have to be condemned and other housing may have to be found for the occupants unless repairs are made. A housing authority construction inspector told us that this problem had been caused by the following design and construction defects: (1) the house design did not provide for gutters or downspouts, (2) either the house design did not provide for reinforcement of the block foundations with concrete columns or steel rods or this work was not accomplished during construction, (3) the foundations were not backfilled properly, (4) the exterior basement walls were not water-proofed adequately, and (5) the quantities of Portland cement used in the mortar were not sufficient.

According to the Bureau's Agency Superintendent at Pine Ridge, shortcuts and improper construction methods were used on these projects and adequate supervision was not provided by the HUD construction representative. The HUD construction representative acted as contracting officer, supervisor, and inspector. The tribal housing authority estimates that \$91,000 will be required to correct these defects in about 50 units. At the time of our visit to the site in May 1970, the deficiencies had not been corrected although the problem had existed from at least 1966.

On the Navajo Reservation 320 low-rent houses constructed of cinder block were not insulated because the plans and specifications did not call for insulation. These houses, constructed from December 1964 to May 1968, have had heatloss problems. The housing authority has requested HUD to finance an engineering-feasibility study to determine the most reasonable solution to the problems.

Architects designed the homes at the Blackfeet, Pine Ridge, and Navajo Reservations. The designs were reviewed and approved both by the housing authority and by HUD. The housing projects on the Blackfeet and Pine Ridge Reservations were started before HUD and the Bureau entered into the interagency agreement for low-rent housing, under which

the Bureau has certain responsibilities for design and construction. Some of the projects at the Navajo Reservation were started after the interagency agreement became effective.

The lack of design modifications also has adversely affected the quality of some houses. We found instances in which the standard design for mutual-help houses had been used without modifications for local climatic conditions. For example, for three mutual-help projects at reservations in Nevada and Arizona, the standard heating plan was followed and, as a result, undersized heating units were installed. The Bureau's Phoenix area housing officer stated that this problem had resulted from not modifying the standard plans to provide for local climatic conditions.

We also found instances in which, because of defects in the design, the same construction defects had been built into different projects. The design of turnkey and mutual-help housing on the Rosebud Reservation, low-rent housing on the Cheyenne River Reservation, and low-rent housing on the Fort Peck Reservation in Montana allowed the snow to blow in through the exterior air vents and to accumulate in the attics. HUD's Chicago Regional Office estimated that the blowing snow had caused damage of about \$7,000 to the housing at the Cheyenne River Reservation in 1965.

Although in 1965 HUD was aware of this attic-vent defect on the Cheyenne River Reservation, in 1966 and 1968 it authorized the design and construction of housing at the Rosebud Reservation which had the same defect. These defects indicate that there is not an adequate system for modifying designs to ensure that defects do not recur.

Incomplete housing projects

Some Indian families are living in new houses in projects which are incomplete or which lack water and sanitation facilities, and some new houses are located in projects which lack roads and streets. Other families have declined to move into the new houses without such supporting facilities. Incomplete housing projects resulted from (1) inadequate planning by, and coordination among, the agencies responsible for ensuring that all facets of the housing projects were completed within the same time frame and (2) a lack of follow-through by the Bureau and HUD to ensure that projects were completed.

At the Rosebud Reservation in April 1970, 10 force account mutual-help houses and 49 turnkey houses did not have water and sanitation facilities. The turnkey houses were occupied initially from November 1968 to April 1970. Of these 49 turnkey houses, 26 had been occupied and 23 had not. According to the Bureau's Area Housing Assistance Officer, delays in providing water and sanitation facilities were due largely to funding problems and difficulties in coordinating an acceptable overall plan whereby the tribe could participate in the funding through a loan from the Economic Development Administration, Department of Commerce. He said that, when this plan did not materialize, other plans had to be made for funding and completing the project through the Indian Health Service. The Indian Health Service stated that the needed sanitation facilities would be provided by the spring or summer of 1971.

HUD, in commenting on a draft of this report, stated that regional-level coordination between HUD and other Federal agencies probably was minimal since the commitment to build the houses had been made in its central office rather than in the field. According to HUD this was not a typical situation but was a result of special efforts to provide immediate housing on the Rosebud Reservation.

The lack of roads and streets for housing projects generally resulted from a lack of coordination either within the Bureau or between the Bureau and other agencies involved. To determine the need for roads and streets for housing projects, the Bureau's roads branch has to coordinate with

the housing branch. In addition, the roads branch has to coordinate with the Federal Highway Administration, Department of Transportation, to obtain approval and funds.

At the Navajo Reservation and at various reservations within the Phoenix area, the Bureau's roads branch has not provided roads or streets in mutual-help projects due to delays in obtaining housing project plans and funds because of the lack of timely coordination with the Federal Highway Administration. The Chief, Branch of Roads, Portland area, told us that improved streets had not been provided in the mutual-help projects at the Swinomish and Yakima Reservations because of inadequate communication and coordination among the Bureau's roads branch, its housing branch, and other Federal agencies.

Also at the Rosebud Reservation, the lack of adequate coordination seemed to be the cause for delays in providing adequate roads and streets for the 400-unit turnkey project. According to a HUD regional official, the tribe initially had agreed to provide roads and streets but later had reneged on its commitment. The Bureau's Area Housing Assistance Officer told us that the Bureau was to assist the tribe in providing adequate access roads or streets to and within the project. In the fall of 1969, we observed that adequate roads and streets had not been provided. According to Bureau field officials, the roads and streets become impassable in the spring. (See photographs on p. 45.) In June 1970 HUD agreed to finance streets for this project.

Houses in several force account mutual-help projects were not finished because the Bureau and/or HUD did not follow through to ensure that all construction had been completed. When the housing authority considers a mutual-help project to be complete and ready for occupancy, the HUD construction representative, accompanied by Bureau and housing authority representatives, makes a final inspection. When the HUD representative considers the units to be safe and livable, HUD issues an inspection memorandum which identifies any incomplete or unsatisfactory items of work. Existing guidelines are not clear, however, as to which agency is responsible for ensuring completion of these items, and, in many cases, the homes are not finished. The Director, Production Division, HUD, informed us that both the Bureau and

HUD felt that it was the other's responsibility. The Bureau's Chief, Division of Housing Assistance, informed us that a joint Bureau-HUD plan or agreement on responsibility was needed.

Conclusions

Design and construction deficiencies and incomplete construction items have resulted in additional costs and accelerating deterioration of houses and have contributed to the lessened possibility of eliminating substandard housing in the 1970's. Further, some Indians, although living in new housing, continue to live in substandard houses.

The design and construction problems identified during our review point out a need to strengthen reviews of housing designs and inspections of construction. Also a need exists to improve coordination among the agencies involved to ensure that all aspects of housing projects are completed.

Recommendations to the Secretary of HUD
and the Secretary of the Interior

We recommend that the Secretary of HUD and the Secretary of the Interior

- strengthen the reviews of housing designs to ensure that housing plans adequately consider local climatic conditions,
- place increased emphasis on inspections during construction to reduce construction problems, and
- clearly establish which agency will be responsible for ensuring that known construction defects and incomplete items of construction are corrected on a timely basis.

We recommend also that the Secretary of the Interior coordinate the activities of the various agencies to ensure that roads and water and sanitation facilities are available as soon as the houses are constructed.

Agency comments

In commenting on a draft of this report, the Department of the Interior agreed that there was a need to strengthen reviews of housing design and construction inspections and to improve interagency coordination. HUD stated that it was aware that certain breakdowns in the design and construction process had occurred and that in the past its regional offices had been advised to be alert for such breakdowns. HUD anticipates that its newly established area and regional offices will be more effective because of their relative proximity to, and knowledge of, projects within their jurisdictions.

LENGTHY CONSTRUCTION PERIOD

In terms of the construction time and the number of houses built, the force account mutual-help program has not been as successful as other HUD-assisted programs. We compared projects on reservations within three Bureau areas. The force account mutual-help projects, normally consisting

of 10 to 20 units each, took an average 19 months to construct. In contrast the HUD-assisted low-rent and turnkey projects (including turnkey mutual-help projects), each consisting of many more units, took an average 10 months to construct.

Our analysis of construction starts showed that a new force account mutual-help project generally was not started until the previous project was near completion. This practice is in accordance with HUD guidelines which point out that generally only 10 to 15 units should be constructed concurrently. Therefore an extended construction period results in delays not only in a current project but also in any planned follow-on projects. It results also in additional costs for supervising construction and for replacing building materials that have been damaged by exposure to the weather or that have been lost due to theft and vandalism.

HUD guidelines suggest that force account mutual-help projects be constructed within 1 year. Bureau officials in the Portland area believe that the 1-year period is unreasonable because, under the existing program framework, the participants have to provide the majority of the labor. They indicated, however, that a 1-year period would be reasonable if professional labor and prefabrication were used.

In the three Bureau areas included in our review, the reported construction period for the 40 force account mutual-help projects, involving 686 houses, ranged from 6 months to 44 months and averaged 19 months. Most of these projects involved 10 to 20 units. In contrast the average construction period for the 27 HUD low-rent, turnkey, and turnkey mutual-help projects included in our review was 10 months. The number of units in these 27 projects averaged 44. On the Yakima Reservation, a 30-unit low-rent project was completed in 13 months but the 10-unit force account mutual-help project took 32 months to complete. On the Navajo Reservation the period of construction for 750 units--six turnkey mutual-help, one turnkey low-rent, and 10 conventional low-rent projects--averaged 9.5 months.

As a result of the lengthy construction periods under the force account mutual-help program, program benefits were deferred and costs increased. For example, at the Quinault Reservation, a 20-unit project took 31 months to complete, which delayed the start of a 20-unit follow-on project. Under the mutual-help program, the Bureau provides a project construction superintendent who is responsible for supervising and coordinating construction of the project from the time construction starts until it is completed. Using HUD's guideline of a 1-year construction period, we estimated that, for the mutual-help projects included in our review, construction supervision costs of \$235,000 were incurred after the 1-year period.

At several projects, other building materials deteriorated as a result of exposure to the weather over the long construction period and partially completed houses were vandalized and materials were stolen. At the Rosebud Reservation nearly all the materials for a force account mutual-help house were stolen over a 2-year period. All that remained at the time of our inspection in November 1969 was the foundation, some weather-ruined plywood, and several rafters.

In February 1970 HUD approved the housing authority's request for supplemental funds of \$19,000 to complete the 50-unit force account mutual-help project on the Rosebud Reservation. These additional funds were needed primarily for replacing materials lost through theft, vandalism, and damage from the elements during the extended construction period.

The exterior siding on the 10 force account mutual-help houses at the Swinomish Reservation was deteriorating at the time of our inspection due, in part, to exposure to the weather during the lengthy construction period. It was exposed both while awaiting installation and while awaiting painting. HUD estimated that it would cost \$10,000 to replace the siding. Also several projects on reservations in the Northwest had been damaged or had lost materials due to theft and vandalism.

According to Bureau and HUD officials, the extended construction periods resulted primarily from the lack of

Indian participation in construction. In our opinion an inherent weakness in the force account mutual-help program is the assumption that the participants will work continually on the housing project until it is complete and that they have the technical competency to do the work assigned to them. The future owners--the participants--are expected to contribute about 20 hours of labor a week over a 52-week period or until the houses are completed. Many participants, however, have not worked regularly on the housing project through its completion.

Factors cited by Bureau and HUD officials as contributing to the poor participation include (1) inadequate orientation of participants as to their responsibilities, (2) lack of leadership by the Bureau construction superintendents in motivating the participants, (3) conflicts between the construction schedule and the Indians' regular hours of employment, and (4) inability of participants to do the skilled work assigned to them. Another reason cited for the lengthy construction period was the reluctance of the housing authorities to remove from the program on a timely basis those participants who were not actively assisting in the construction of their houses.

We believe that the Bureau could help to alleviate some of these causes for poor participation by more diligently carrying out its responsibilities under the force account mutual-help program. Bureau and HUD guidelines for mutual-help housing indicate that the Bureau is to inform program participants of their duties and responsibilities, provide adequate construction leadership and supervision, organize and coordinate work crews, and ensure that each participant contributes approximately the same number of hours. The Bureau construction superintendent is responsible for construction schedules based on the manpower available for each particular day. He is responsible also for all phases of the work, including supervision and management of the labor force. In addition, the Bureau is to endeavor to formulate training programs to assist the participants in the construction of their houses.

Conclusions

The force account mutual-help program has not been successful in providing large quantities of new housing for Indians on a timely basis. The program has worked well on only a few reservations. On the basis of experience, it does not seem practicable to expect that all the conditions contributing to the lengthy construction period for mutual-help projects can be eliminated in most Indian communities. Therefore we believe that the force account mutual-help program should be limited to those reservations where it is strongly desired and where there is reasonable assurance that the problems associated with the program can be overcome.

Recommendations to the Secretary of HUD and the Secretary of the Interior

We recommend that the Secretary of HUD and the Secretary of the Interior use the force account mutual-help program only when it is desired strongly by the Indians, because it has the least potential for timely construction and usually has fewer houses in a project. We recommend also that the Secretary of the Interior ensure that, where houses are constructed under the mutual-help program, the participants are informed adequately of their duties and responsibilities and are provided with sufficient training, supervision, and leadership.

Agency comments

Both HUD and the Department of the Interior, in commenting on the draft of this report, concurred with our recommendations and informed us that field officials would be advised to deemphasize force account mutual-help projects. HUD informed us that it planned to emphasize using turnkey or competitively bid projects.

APPENDIXES

DESIGN AND CONSTRUCTION DEFECTS AND INCOMPLETE

CONSTRUCTION ITEMS AT SELECTED RESERVATIONS

<u>Reservation</u>	<u>Type of project</u>	<u>Number of units in project (note a)</u>	<u>Brief description (note a)</u>
DESIGN DEFECTS:			
Pine Ridge	Low rent	127	Basement walls were either cracked or bowed in several units. Estimated cost to repair basements in about 50 units and to correct causes was \$91,000.
Pine Ridge	Housing for elderly	44 (beds)	Ceiling in boiler room collapsed under weight of fuel tank suspended from ceiling, and undersized sewer lines caused sewer to back up in the kitchen drain. Estimated cost to repair boiler room and sewer lines was \$2,850.
Rosebud	Mutual help Turnkey	50 400	Exterior air vents allow snow to enter and accumulate in attic.
Cheyenne River	Home for elderly	-	Exterior vent permits snow to enter attic and accumulate and thus cause water damage. Rain gutters were not installed on the building.
Cheyenne River	Low rent	54	Snow blowing into the houses through the attic vents caused damage of \$7,000.
Navajo	Low rent	320	Cinder block walls which had not been insulated caused heat-loss problems.
Navajo	Low rent	130	Exterior stucco walls were cracked. Estimated cost to correct was \$19,500.
Salt River	Mutual help	15	Glass panes in french doors starting about 6 inches above the floor, were broken out. Indications of rot in the four corners where the fascia boards join under the roof show poor design or faulty material.
Hualapai, Arizona	Mutual help	10	Inadequate or undersized heating units had to be replaced. About \$6,000 was spent to replace the heating units on the Hualapai Reservation.
Duck Valley,	do.	15	
Nevada-Idaho	do.	16	
Fort Apache	do.		
Blackfeet	Low rent	50	Absence of design details and inadequate construction resulted in: cracks in the outside walls; failure to install an adequate vapor barrier in the attic to prevent condensation from forming in the space above the ceiling; inadequate insulation which allowed ice and frost to form on the inside walls; installation of inadequate heating system in the houses; unstable wind barriers on the front porches; and poor landscaping. Estimated cost to make units habitable amounted to \$229,000.
Fort Peck	Low rent	56	There were design and construction defects, including inadequate insulation, lack of protective hoods over the louvers, and installation of the kitchen vents in the ceiling instead of in the walls. Correcting these defects and installing an adequate drainage system will cost about \$43,000.

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APPENDIX I

<u>Reservation</u>	<u>Type of project</u>	<u>Number of units in project (note a)</u>	<u>Brief description (note a)</u>
Yakima	Mutual help	10	Sheetrock window casing was deteriorating. Corrective work was estimated at \$1,250.
Yakima	Mutual help	10	Lightweight composition roofing was not adequate. Estimated cost to install heavier roofing was \$800 a unit, or \$8,000.
Swinomish	Mutual help	10	There were no gutters, no downspouts, and no vent hookup designed for dryers. Kitchen range placed in front of a window caused a potential fire hazard because of the curtains.
Quinault	Housing improvement	21	There were insufficient gutters or downspouts, no porch or canopy roof over front and rear doors, and a lack of interior doors. Estimated cost to provide these items at time of construction was \$6,200.
CONSTRUCTION DEFECTS:			
Pine Ridge	Low rent	127	Siding was loose, corner trim was missing, walls or ceilings were stained due to water leaks, and bathroom basins were not secured in place. Estimated cost to repair was \$52,000.
Pine Ridge	Home for elderly	44 (beds)	The cornices were loose and the roof leaked. Estimated cost to repair was \$5,900.
Pine Ridge	Housing improvement	124	Some foundations were not level.
Rosebud	Transitional	375	In 22 of the 23 transitional homes inspected, the exterior walls were stained improperly.
Rosebud	Transitional	375	Improperly installed stove pipes caused smoke damage to interior walls. Estimated cost to repair was \$25 a unit, or \$9,375.
Rosebud	Turnkey	400	Sewer lines for 14 of the units were installed at back of houses rather than in front where the main sewer is planned. This necessitates reversing the line for each house to hook into the main sewer.
Cheyenne River Do.	Mutual help	40	In seven of 17 houses inspected, settling of the foundations due to inadequate compaction of the backfill caused cracks in the walls and separation of the mopboards and door frames from the floor.
	Low rent	54	
Navajo	Low rent	50	Since water pipes had not been installed in accordance with plans and specifications, water pipes froze and broke.
Fort Peck	Low rent	56	In three of the units, inadequate drainage system and improper backfilling of the foundations caused the foundations and floors to settle and crack.

APPENDIX I

<u>Reservation</u>	<u>Type of project</u>	<u>Number of units in project (note a)</u>	<u>Brief description (note a)</u>
Swinomish	Mutual help	10	Cabinets did not fit shell or frame of house, closet doors were not hung properly, and floorings were of different thicknesses.
Fort Hall, Idaho	Housing improvement	65	Floors were spongy because house footings had been set during winter when ground was frozen.
INCOMPLETE CONSTRUCTION:			
Pine Ridge	Low rent	127	Paved streets were not provided. Some roads become impassable during the winter. Estimated cost to complete streets, driveways, and drainage on the 400-unit turnkey project at Rosebud was \$1,611,000. Estimated cost to provide streets and curbing on the 10-unit Yakima project was \$25,000.
Rosebud	Mutual help	50	
Do.	Turnkey	400	
Do.	Transitional	375	
Cheyenne River	Mutual help	40	
Do.	Low rent	54	
Navajo	Turnkey-	230	
	Mutual help		
Yakima	do.	10	
Swinomish	do.	10	
Rosebud	Turnkey	400	As of April 1970, 49 of the turnkey units and 10 of the mutual help units had no water or sanitary facilities.
Do.	Mutual help	50	
Rosebud	Turnkey	400	Landscaping and backfill were not complete. Estimated cost to complete was \$176,000.
Pine Ridge	Low rent	127	Floors were spongy because the floor braces had not been nailed in place on the basement ceilings.
Rosebud	Turnkey	400	Foundations had inadequate backfill. In 10 turnkey units inspected, the floors were spongy because of a failure to backfill the foundation, which, in turn, had caused the foundation to settle. For the transitional units it is estimated that \$112,500 will be required to finish backfilling and grading.
Do.	Transitional	375	
Do.	Mutual help	50	
Yakima	Mutual help	10	Several construction items, including interior light fixtures, exterior painting, and window casings and moldings, were still incomplete 18 months after occupancy.
Swinomish	Mutual help	10	There were several incomplete construction items, including finishing of interior woodwork and drainage.

^aThe problems explained under the brief description do not always pertain to all the units in the project.

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United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

FEB 18 1971

Mr. Joseph P. Rother, Jr.
Assistant Director, Civil Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Rother:

The Department has reviewed with interest the GAO Draft Report, "Review of Progress in Meeting the Objectives of the Indian Housing Program, Department of the Interior, Department of Housing and Urban Development." The report lists certain examples of deficiencies in funding and occupancy experiences. Although important in the overall evaluation, we do not feel these examples alone are evidence that the program is misdirected in its objectives to improve Indian Housing. We believe the solutions and use of subsidized housing program of HUD constitute the most suitable national housing program. Most of the Indian people are poor. To house poor people decently the housing program subsidy was established on a national basis.

We agree with your conclusion concerning the schedule of elimination of substandard housing on Indian reservations will not be achieved without substantial acceleration of the program. Because of our reliance on the national housing program goals and priorities of HUD and its funding, we share in having to defer some of our programs for future accomplishment with other housing needs.

We feel the inclusion of adjacent off-reservation population is not an important factor in determining housing needs. It indicates that many Indians would return to the reservation if decent housing existed. We feel that jobs and reasonable income sufficient to support the home and family are the prime movers of the Indian people in most cases. It has been our experience that migration back to the reservations occurs generally in direct proportion to the availability of jobs. It would be important if jobs and housing could be complementary and occur simultaneously. Should the economy of a reservation improve considerably, the housing inventory would recognize and reflect this need. The present inventory form (copy attached) has recognized all the remaining factors cited by the GAO and provides columns for their inclusion. Certainly, home deterioration is an important factor. Although it has been considered in the past, it has not had the careful consideration it should. We will emphasize this factor when requesting our next inventory.

An annual inventory will be taken using the guidelines established in May 1970. Providing funds are available, we intend to contract with qualified companies or individuals to obtain inventories of housing conditions when necessary. "In-house" capabilities will be used where available and the housing officers will be directed to develop, obtain and maintain accurate data. We have also requested that the Indian Health Service (IHS) survey, HUD 701 Planning statistics and the Bureau of Indian Affairs population figures be obtained and utilized for the annual housing inventory.

We also feel strongly that proper maintenance inspection and followup are necessary and essential to maintaining standard and decent housing. As the report recognizes, many of the occupants are of low or inadequate income. The heavy investment of Federal monies should be protected by adequate maintenance. The 1970 Housing Act recognized this need and authorizes funds for this effort. The BIA field staff in cooperation with the housing authorities can supplement the HUD staff when necessary in making inspection and identifying deficiencies. The responsibility for providing funds rests with HUD. Within the availability of funds, we will continue to supplement training programs of the local housing authorities.

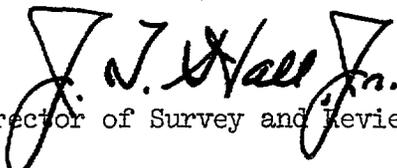
The Bureau of Indian Affairs will be responsible for inspecting and identifying deficiencies in those houses constructed and renovated under the Housing Improvement Program. This will be balanced by continued support for home maintenance and training programs as well as monetary support in those cases where required.

We believe that the design and construction problems identified during your review point out a need to strengthen reviews of housing design and inspections of construction. We also believe that a need exists to improve coordination among the agencies involved to assure that all aspects of housing projects are completed.

We concur in the GAO's recommendation for the force account mutual-help housing projects and will issue instructions to the BIA's Area and Agency Offices that further force account mutual-help projects be discouraged except where there is a strong desire on the part of the local housing authorities for this program and where the local housing authorities will indicate assurance that they will make every effort to see that housing is constructed in a timely manner.

We appreciate the opportunity to have commented on this draft report.

Sincerely yours,


Director of Survey and Review

GAO note: The inventory form cited is not reproduced herein.

APPENDIX III



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL HOUSING ADMINISTRATION
WASHINGTON, D. C. 20411

ASSISTANT SECRETARY-COMMISSIONER

FEB 26 1971

Mr. Victor L. Lowe
Associate Director
United States General Accounting Office
Washington, D. C. 20548

Dear Mr. Lowe:

On behalf of the Secretary, this is in response to your letter of November 19, 1970, which transmitted copies of a proposed report to the Congress on progress in meeting the objective of the Indian housing program.

We have reviewed the proposed report and are attaching this Department's comments for your use in the preparation of the final report.

We appreciate the opportunity to comment on this important subject.

Sincerely yours,

for Woodward Kingman
Eugene A. Gullledge
Assistant Secretary-Commissioner

Attachment

GAO note: HUD's comments have been considered and incorporated in the body of the report.

PRINCIPAL OFFICIALS OF THE
DEPARTMENTS OF THE INTERIOR AND
HOUSING AND URBAN DEVELOPMENT
RESPONSIBLE FOR THE ADMINISTRATION OF
ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
<u>DEPARTMENT OF THE INTERIOR</u>		
SECRETARY OF THE INTERIOR:		
Rogers C.B. Morton	Jan. 1971	Present
Fred J. Russell (acting)	Nov. 1970	Dec. 1970
Walter J. Hickel	Jan. 1969	Nov. 1970
Stewart L. Udall	Jan. 1961	Jan. 1969
ASSISTANT SECRETARY OF THE INTERIOR (PUBLIC LAND MANAGEMENT):		
Harrison Loesch	Apr. 1969	Present
Vacant	Jan. 1969	Apr. 1969
Harry R. Anderson	July 1965	Jan. 1969
COMMISSIONER OF INDIAN AFFAIRS:		
Louis R. Bruce	Aug. 1969	Present
T.W. Taylor (acting)	June 1969	Aug. 1969
Robert L. Bennett	Apr. 1966	May 1969
Philleo Nash	Sept. 1961	Mar. 1966
<u>DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT</u>		
SECRETARY OF HOUSING AND URBAN DEVELOPMENT (formerly Administrator, Housing and Home Finance Agency):		
George W. Romney	Jan. 1969	Present
Robert C. Wood	Jan. 1969	Jan. 1969
Robert C. Weaver	Feb. 1961	Dec. 1968

APPENDIX IV

<u>Tenure of office</u>	
<u>From</u>	<u>To</u>

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (continued)

ASSISTANT SECRETARY FOR RENEWAL
AND HOUSING MANAGEMENT:

Norman V. Watson (acting)	July 1970	Present
Lawrence M. Cox	Mar. 1969	July 1970
Howard J. Wharton (acting)	Feb. 1969	July 1970
Don Hummel	July 1966	Feb. 1969

ASSISTANT SECRETARY FOR HOUSING
PRODUCTION AND MORTGAGE CREDIT
AND FEDERAL HOUSING COMMISSIONER:

Eugene A. Gilledge	Nov. 1969	Present
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